

XXXIII.—*Some Remarks on the Subspecies of Crested Larks*
(*Galerida cristata*) found in Egypt. By M. J. NICOLL,
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THE following remarks are based on a series of 136 specimens of *Galerida cristata* brought together by the writer during seven and a half years' residence in Egypt, as well as on a careful examination of the entire series of Egyptian Crested Larks in the Tring Museum including Brehm's types of *G. c. nigricans*, *G. c. altirostris*, and the type of *G. c. caroli* Hartert.

It is a somewhat remarkable fact that no fewer than five distinct forms of *Galerida cristata* are found as residents in Egypt north of Halfa*. For convenience I append a short key.

1. GALERIDA CRISTATA NIGRICANS.

Very dark above and heavily marked with black on the underparts.

Wing-measurement of male, 100–106 mm.

2. GALERIDA CRISTATA ALTIROSTRIS.

Paler above than *G. c. nigricans* and the marking on the underparts paler and less clearly defined.

Wing-measurement of males, 98–103·5 mm.

3. GALERIDA CRISTATA MÆRITICA.

Paler above than *G. c. altirostris*, the underparts usually whiter and clearly marked with black streaks on the breast.

Wing-measurement of males, 101–108 mm.

4. GALERIDA CRISTATA CAROLI.

Pale sandy, greyer in winter plumage.

Wing-measurement of males, 100–104·5 mm.

5. GALERIDA CRISTATA BRACHYURA.

Somewhat intermediate between *G. c. caroli* and *G. c. altirostris*.
See remarks under this subspecies.

I do not for a moment pretend that the following remarks are "the last word" on the subject, as I have yet much ground to go over before I can ascertain the exact range of each race of this interesting species, and it is possible that

* In the Egyptian Sudan *G. c. nubica* and *G. c. isabellina* are found between Halfa and Khartoum (the former is very nearly allied to *G. c. caroli*). Neither have been recorded from Egypt.

in the oases of the western desert undescribed forms yet await discovery. The object of the present paper is (1) to place on record the results of a careful study of existing material, (2) to attempt to straighten out this somewhat difficult and little understood subject.

Recently three papers have been published on Egyptian birds in which Crested Larks figure largely. I refer to:—

1. Lynes and Witherby, "On a Collection of Birds from the Mediterranean." *Ibis*, 1912, p. 121.
2. C. B. Ticehurst, "Birds of Lower Egypt." *Zoologist*, 1912, pp. 41-59.
3. Paul Kollibay, "Bemerkungen über die Haubenlerchen von Suez, Sinai, und Palästina." *Ornith. Monatsber.* xx. 1912, pp. 113-115.

The first two of these papers are based on collections of birds made during short visits to Egypt, and the last is a careful paper on the form of *Galerida cristata* from the neighbourhood of Suez. I have had the good fortune to examine all the specimens of Crested Larks referred to in Messrs. Lynes and Witherby's and Dr. Ticehurst's papers.

Messrs. Lynes and Witherby have come to the same conclusions as I have, and their statements on the ranges of the different forms treated of are, as far as they go, and they are necessarily somewhat limited, perfectly correct. I regret that I cannot agree with Dr. Ticehurst in his review of the Crested Larks obtained during his short visit to Egypt, but his material was very small for such a difficult subject.

In working out the ranges of the different forms of *Galerida* in Egypt, it must be remembered that where two or perhaps three forms meet, interbreeding must and undoubtedly does take place, and some individuals are consequently difficult to place with certainty, and that slight variations take place at extremes of the range. It is only by collecting and studying large series from as many localities as possible that any definite conclusions can be made and real facts ascertained.

Galerida cristata nigricans Brehm.

Galerita nigricans Brehm, Vögelfang, 1855, p. 123.

Galerida cristata nigricans Brehm; Hartert, Vögel pal. Fauna, i. 1904, p. 227.

This, the darkest form of the Egyptian Crested Lark, frequents the black soil of the Delta. I have specimens from as far east as Gheit el Nassara, near Damietta, where in January I found it and *G. c. altirostris* consorting together in small parties.

From the west Capt. Flower has collected specimens at Sidi Salem, south of Lake Borolos, and Commander Lynes has found it nearly as far west as Esbet Kourched, where it again meets with *G. c. altirostris*.

The southward limits of *G. c. nigricans* appear to be near Cairo, where I have obtained examples at Boulac Dacrour.

We have no records of the occurrence of this darker form from north of Lake Borolos, the Mediterranean coast being inhabited by *G. c. altirostris* and *G. c. caroli*.

The delta subspecies is easily recognisable by the very dark coloration of the back and the large black blotches on the upper breast.

The wing-measurement of males ranges from 100–106 mm.

Galerida cristata altirostris Brehm.

Galerita altirostris Brehm, Vögelfang, 1855, p. 124.

Galerida cristata altirostris Brehm; Hartert, Vög. pal. Fauna, i. 1904, p. 233.

This form of Crested Lark can be traced on the Mediterranean coast of Egypt from Mariut on the west as far east as Damietta, southward on both sides of the Nile south of Cairo to Aswan. It generally skirts the breeding range of *G. c. nigricans* in the delta and keeps to the poorer soil near the desert edge, but in places it meets with, and possibly interbreeds with, the latter.

At its northern limit *G. c. altirostris* meets, and apparently interbreeds with *G. c. caroli*, for I have examined a specimen

shot by Dr. C. B. Ticehurst on an island in Lake Mareotis which was paired with a *G. c. caroli*. Dr. Ticehurst identifies the bird in question (*G. c. altirostris*) as *G. c. mæritica* (cf. Zoologist, 1912, p. 48), an identification with which I cannot agree.

G. c. altirostris was originally described from Kom Ombo in Upper Egypt, and the type specimen shot in October is a freshly moulted bird of a greyish-brown coloration. I can, however, exactly match it with a specimen from Damietta.

This subspecies differs from *G. c. nigricans* in being paler above and in having the spots on the breast generally smaller, less black, and usually less distinct; this last feature is especially noticeable in freshly moulted birds.

Wing-measurement of males, 98-103·5 mm.

Galerida cristata mæritica Nicoll and Bonhote.

Galerida cristata mæritica Nicoll and Bonhote, Bull. B. O. C. xxiii. 1909, p. 101.

In our original description Mr. Bonhote and I wrongly compared this race with *G. c. nigricans*, whereas it is nearest to *G. c. altirostris*; this was due, however, to the fact that it was not till a year later that we discovered that *G. c. altirostris* was found in Lower Egypt, all our specimens having previously been "lumped" with *G. c. nigricans*.

Galerida cristata mæritica was described from specimens obtained by us in March 1909, on the southern shore of Lake Kerun in the Fayum, whence I have since procured a large series of examples, both in spring and winter.

This form is distinguishable from *G. c. altirostris* by the paler coloration of the upper parts, the usually slightly whiter under parts especially noticeable in spring examples, by the usually smaller and more clear-cut spots on the breast, and by its longer wings, a series of 28 males having an average wing-measurement of 103·4 mm., whereas a similar number of males of *G. c. altirostris* have an average wing-measurement of 100·15 mm.

It is not always easy, and sometimes perhaps impossible, to separate some individuals of *G. c. mæritica* from *G. c. alti-*

rostris, but with a sufficient series of each form the differences are quite appreciable.

I have not yet seen a true specimen of *G. c. mæritica* from outside of the Fayum, and I believe this race to be restricted to that oasis.

Wing-measurement of males ranges from 101–108 mm.

Galerida cristata caroli Hartert.

Galerida cristata caroli Hartert, Vög. pal. Fauna, i. 1904, p. 234.

This, the palest of all the Egyptian Crested Larks, was described from specimens collected by the Hon. N. Charles Rothschild in the Wadi Natron in Lower Egypt.

Outside the Wadi Natron the distribution of this form is somewhat erratic. The extreme western limit of its range is unknown, but I have specimens from Dabaa, 160 miles west of Alexandria on the Mediterranean coast, collected by T. W. Russell Bey and Mr. T. E. S. Armstrong.

On the islands in Lake Mareotis it breeds and, as we have pointed out, it interbreeds there with *G. c. altirostris*. On the promontory of Abu Kir, near Alexandria, it occurs as a breeding species, and there it appears to form a small isolated colony on the sandy ground close to the sea. In June 1913 it was the only form of *Galerida* I found there, though at Montaza, a few minutes train journey south of Abu Kir, I found *G. c. altirostris* abundant, and the latter was extremely common immediately to the east and along the north shore of Lake Edku, where it was feeding young.

On the east *G. c. caroli* breeds on the shore of Lake Menzaleh, near the Suez Canal, and Capt. H. Lynes found it near Mahsameh between Ismailia and Cairo (Ibis, 1912, p. 134), and I obtained a straggler at Inchas, within the range of *G. c. nigricans*, on 13 Feb. 1911, after a gale from the north.

A series of four examples from Dabaa collected in January, February, and March, are paler on the upper side than most of those from the Wadi Natron collected in March, but I have specimens from the latter typical locality which exactly match them.

This form is recognisable at once from the other forms of Egyptian *Galerida* by its pale, sandy coloration, while so far as we know it is found only on sandy soil, either near the sea coast (Abu Kir and Dabaa), desert country near the cultivation (Mahsameh), or sandy country near salt or brackish lakes (Wadi Natron and Lake Menzaleh).

In habits it is very shy, especially during the breeding season.

Wing-measurement of males, 100–104.5 mm.

Galerida cristata brachyura Tristram.

Galerida brachyura Tristram, P. Z. S. 1864, p. 435.

Galerida cristata brachyura Tristram ; Hartert, Vög. pal. Fauna, i. 1904, p. 234.

At present I have only been able to examine five specimens of the Crested Lark from Suez, all of which are in full moult. Such being the case, I provisionally follow Dr. Paul Kollibay and place them under the above form. How far this race extends along the Red Sea coast I have no information. The type of this subspecies was obtained at Ghor at the southern end of the Dead Sea in Palestine.

On some future occasion, after I have been able to examine more specimens, I hope to go more fully into the subject of this race.

For the convenience of my readers I give a short table showing the ranges of the different races of Crested Larks in Egypt :—

<i>Galerida cristata nigricans.</i>	Delta.
„ „ <i>altirostris.</i>	Mediterranean coast to Aswan and possibly farther south.
„ „ <i>mæritica.</i>	Fayum.
„ „ <i>caroli.</i>	Northern Egypt (local).
„ „ <i>brachyura.</i>	Red Sea coast.

The wing-measurements of all the specimens examined were made with calipers from the carpal joint to the tip of the longest primaries without flattening the primaries along the measure.